Practice: 311 - Alley Cropping

Scenario: #1 - Single row container planting stock

## **Scenario Description:**

The crop or grass land is planted with rows of container stock trees to increase crop diversity. Final row width, and spacing of trees within the row, is based on farm equipment size, growth form of trees, light needs of annual crop or grass, and intent of the landowner. Payment includes the trees, tree planting costs and foregone income for the area of land being removed from crop production and put into trees. The resource concerns are plant condition - inadequate structure and composition. Site preparation is not included and must be implemented through associated practice 490 Tree/Shrub Site Preparation. Additional associated practices may include: 315 Herbaceous Weed Control, 660 Tree/Shrub Pruning, 484 Mulching

### **Before Situation:**

The landscape has been cropped or in perennial grass for many years. It is void of any perennial tree vegetation. On cropland site preparation needs may need deep ripping to eliminate any plow pan and on grass land competing vegetation control is accomplished prior to tree planting.

#### **After Situation:**

Trees have been established to diversify the crop production of the field. Typically the area planted is 10 acres on approximately  $12 \times 40$  foot spacing.

Scenario Feature Measure: planted seedling

Scenario Unit: Each

**Scenario Typical Size:** 900

Scenario Cost: \$23,136.93 Scenario Cost/Unit: \$25.71

Cost Details (by category) Component Name	ID	Component Description	Unit	Price	Quantity	Cost
	עוו	Component Description	Ullit	(\$/unit)	Qualitity	COSL
Tractor, agricultural, 120 HP	962	Agricultural tractor with horsepower range of 90 to 140. Equipment and power unit costs. Labor not included.	Hour	\$55.27	90	\$4,974.30
Auger, Post driver attachment	934	Auger or post driver attachment to a tractor or skidsteer. Does not include power unit. Labor not included.	Hour	\$8.46	80	\$676.80
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hour	\$37.62	4	\$150.48
Foregone Income						
FI, Soybeans Dryland	1961	Dryland Soybeans is Primary Crop	Acre	\$426.49	1.25	\$533.11
FI, Corn Dryland	1959	Dryland Corn is Primary Crop	Acre	\$432.87	1.25	\$541.09
Labor						
Equipment Operators, Light	232	Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	Hour	\$22.06	80	\$1,764.80
General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$22.43	180	\$4,037.40
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	\$37.40	20	\$748.00
Materials						
Cable ties, plastic	1575	Plastic cable ties (typ. 8-12") to assist in securing items. Materials only.	Each	\$0.05	900	\$45.00
Tree shelter, solid tube type, 5" x 48"		5" x 48" tree tube for protection from animal damage. Materials only.	Each	\$2.04	900	\$1,836.00
Stakes, wood, 3/4" x 3/4" x 60"	1583	3/4" x 3/4" x 60" wood stakes to fasten items in place. Includes materials only.	Each	\$1.52	900	\$1,368.00
Tree, hardwood, seedling or transplant, potted or B&B, 2-3 gal.	1532	Potted or balled and burlapped hardwood tree, 2-3 gal. Includes materials and shipping only.	Each	\$6.89	900	\$6,201.00

Mobilization, medium	1139 Equipment with 70-150 HP or typical weights between	Each	\$260.95	1	\$260.95
equipment	14,000 and 30,000 pounds.				

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Scenario: #3 - Single row bareroot planting stock

## **Scenario Description:**

The crop or grass land is planted with rows of bareroot trees to increase crop diversity. Final row width, and spacing of trees within the row, is based on farm equipment size, growth form of trees, light needs of annual crop or grass, and intent of the landowner. Payment includes the trees, tree planting costs and foregone income for the area of land being removed from crop production and put into trees. The resource concerns are plant condition - inadequate structure and composition. Site preparation is not included and must be implemented through associated practice 490 Tree/Shrub Site Preparation. Additional associated practices may include: 315 Herbaceous Weed Control, 660 Tree/Shrub Pruning, 484 Mulching

### **Before Situation:**

The landscape has been cropped or in perennial grass for many years. It is void of any perennial tree vegetation. On cropland site preparation needs may need deep ripping to eliminate any plow pan and on grass land competing vegetation control is accomplished prior to tree planting.

#### **After Situation:**

Trees have been established to diversify the crop production of the field. Typically the area planted is 10 acres on approximately  $12 \times 40$  foot spacing.

Scenario Feature Measure: planted seedling

Scenario Unit: Each

Scenario Typical Size: 900

Scenario Cost: \$1,846.16 Scenario Cost/Unit: \$2.05

Cost Details (by category):				Price		
Component Name	ID	Component Description	Unit	(\$/unit)	Quantity	Cost
Equipment/Installation						
Mechanical tree planter	1600	Mechanical tree planter. Requires a pulling unit of either tractor or small dozer depending upon site conditions. Does not include labor.	Hour	\$6.37	1.25	\$7.96
Tractor, agricultural, 60 HP	963	Agricultural tractor with horsepower range of 50 to 90. Equipment and power unit costs. Labor not included.	Hour	\$23.73	1.25	\$29.66
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hour	\$37.62	1.25	\$47.03
Foregone Income						
FI, Corn Dryland	1959	Dryland Corn is Primary Crop	Acre	\$432.87	1.25	\$541.09
FI, Soybeans Dryland	1961	Dryland Soybeans is Primary Crop	Acre	\$426.49	1.25	\$533.11
Labor						
Equipment Operators, Light	232	Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	Hour	\$22.06	1.25	\$27.58
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	\$37.40	1.25	\$46.75
General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$22.43	1.25	\$28.04
Materials						
Tree, hardwood, seedling or transplant, bare root, 6-18"	1509	Bare root hardwood trees 6-18" tall. Includes materials and shipping only.	Each	\$0.36	900	\$324.00
Mobilization						
Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$260.95	1	\$260.95

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Scenario: #4 - Single row bareroot planting stock with tree shelters

## **Scenario Description:**

The crop or grass land is planted with rows of bareroot trees to increase crop diversity. Final row width, and spacing of trees within the row, is based on farm equipment size, growth form of trees, light needs of annual crop or grass, and intent of the landowner. Payment includes the trees, tree planting costs. tree shelters, and foregone income for the area of land being removed from crop production and put into trees. The resource concerns are plant condition - inadequate structure and composition. Site preparation is not included and must be implemented through associated practice 490 Tree/Shrub Site Preparation. Additional associated practices may include: 315 Herbaceous Weed Control, 660 Tree/Shrub Pruning, 484 Mulching

# **Before Situation:**

The landscape has been cropped or in perennial grass for many years. It is void of any perennial tree vegetation. On cropland site preparation needs may need deep ripping to eliminate any plow pan and on grass land competing vegetation control is accomplished prior to tree planting.

#### **After Situation:**

Trees have been established to diversify the crop production of the field. Typically the area planted is 10 acres on approximately  $12 \times 40$  foot spacing.

Scenario Feature Measure: planted seedling

Scenario Unit: Each

Scenario Typical Size: 900

Scenario Cost: \$5,431.61 Scenario Cost/Unit: \$6.04

Cost Details (by category):						
Component Name	ID	Component Description	Unit	(\$/unit)	Quantity	Cost
Equipment/Installation						
Tractor, agricultural, 60 HP		Agricultural tractor with horsepower range of 50 to 90. Equipment and power unit costs. Labor not included.	Hour	\$23.73	1.25	\$29.66
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hour	\$37.62	1.25	\$47.03
Mechanical tree planter		Mechanical tree planter. Requires a pulling unit of either tractor or small dozer depending upon site conditions. Does not include labor.	Hour	\$6.37	1.25	\$7.96
Foregone Income						
FI, Soybeans Dryland	1961	Dryland Soybeans is Primary Crop	Acre	\$426.49	1.25	\$533.11
FI, Corn Dryland	1959	Dryland Corn is Primary Crop	Acre	\$432.87	1.25	\$541.09
Labor			·		·	
Supervisor or Manager		Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	\$37.40	1.25	\$46.75
Equipment Operators, Light		Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	Hour	\$22.06	1.25	\$27.58
General Labor		Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$22.43	16.25	\$364.49
Materials			·		·	•
Stakes, wood, 3/4" x 3/4" x 60'		3/4" x 3/4" x 60" wood stakes to fasten items in place. Includes materials only.	Each	\$1.52	900	\$1,368.00
Cable ties, plastic		Plastic cable ties (typ. 8-12") to assist in securing items. Materials only.	Each	\$0.05	900	\$45.00
Tree shelter, solid tube type, 5" x 48"		5" x 48" tree tube for protection from animal damage. Materials only.	Each	\$2.04	900	\$1,836.00
Tree, hardwood, seedling or transplant, bare root, 6-18"		Bare root hardwood trees 6-18" tall. Includes materials and shipping only.	Each	\$0.36	900	\$324.00

Mobilization, medium	1139 Equipment with 70-150 HP or typical weights between	Each	\$260.95	1	\$260.95
equipment	14,000 and 30,000 pounds.				